HYGIENE AND PUBLIC HEALTH.

UNDER THE CHARGE OF
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Cholera Bacilli and Uncooked Milk.

Dr. Fritz Basenau's experiments (*Archiv der Hygiene*, xxiii. p. 170) on the life of cholera bacilli in milk appear to disprove the conclusions of Hesse, who found that uncooked milk has the property of killing the cholera germ within twelve hours. Basenau finds that not only it does not possess this power, but that the germs are active after thirty-eight hours, and that up to the point of coagulation they considerably increase in number. In polluted milk they were found to be active for at least thirty-two hours at different temperatures (24°, 37°, and at the room temperature), and to remain so even after the milk is coagulated. With these results in mind, the recommendation of Hesse to use milk as a prophylactic and curative agent in time of cholera must not be too readily accepted.

Poisonous Action of the Aqueous Vapor of Expired Air.

Dr. Livierato (*Arch. Ital. di Biol.*, 1895, p. 279) condensed the aqueous vapor of the breath of persons afflicted with disease of the respiratory tract accompanied by fever, of the same without fever, of persons with fever but with no respiratory disease, and of persons in health, and injected the liquids obtained into rabbits. That from the first mentioned caused a fever lasting from three to six days, dulness, and diminished reflexes; that from the patients with no fever gave the same results, but less marked; that from persons with fever but no respiratory disease produced little or no effect, and that from persons in health none whatever. The results were the same in each case when the liquid used was sterilized.

Typhoid Fever, Polluted Water, and Flies.

Surgeon-Major Battersby, A.M., S. Chitral Relief Force (*British Medical Journal*, August 10, 1895) suggests the probability of the existence of some other cause for typhoid fever than impure drinking water, inasmuch as "here in India we witness year by year outbreaks of enteric which are most difficult, if not impossible, to trace to a water-borne cause." He then draws attention to the part taken by the common house-fly as a carrier and disseminator of the disease, and speaks of the universal prevalence of enteric fever among Europeans in India; and *apropos* of water as a cause says: "Our water supply has in many instances been above suspicion, being procured from springs coming directly from the mountain-side, and yielding no reaction as to oxidizable organic matter when tested with permanganate of potash solution." The theory of Dr. Battersby as to the part taken by the house-fly as a disseminator of the disease is opposed by Dr. Gilbert Kirker, Staff Surgeon R. N. (*British Medical Journal*, August 24, 1895), who writes: "The contrast between the statement of theory and the statement of the actual occurrence is very striking, and I take advaniage of it to direct attention to a different aspect of the causation of the enteric and other fevers from which British sailors and soldiers suffer in hot climates. Surgeon-Major Battersby, finding that the theory of water causation did not fit the facts, has recourse to flies as the carriers of the poison and disseminators of the disease. To my mind, however, the fly-borne, as well as the water-borne, theory leaves unexplained the constantly observed but much neglected fact that while strangers are suffering the natives are in good health. The native Egyptian, whom I know, abhorring filters, drinks the highly contaminated Nile water and lives in a swarm of flies, yet he is also not attacked by typhoid fever, while the carefully fostered British soldier is." Dr. Kirlen attributes the trouble to the "ignorance of the art of living in hot climates."

These two communications bring most forcibly to mind the experiments and conclusions of Flügge, Arnould, Kraus, Karlinski, and others, that the typhoid bacillus and certain other pathogenic micro-organisms have a better chance of life in sterilized or organically pure water than in grossly polluted water, in which they appear to be soon overcome by the other non-pathogenic bacteria.

AMERICAN VERSUS GERMAN BEEF.

BOYSEN and VOLLERS (*Mittheilungen für Thierärzte*, i, No. 8) record themselves against the widespread suspicion and dread of American beef imported into Germany as being tuberculous. Examination at Hamburg of over 8000 imported American beeves showed that only four, or 0.05 per centum, were tuberculous, while of native beeves for slaughter at the same place 8 per centum were found to be afflicted.

POWDERED MEAT.

The *Pharmaceutische Centralhalle* (1894, xxxv. p. 453) furnishes a recipe for a condensed meat which might be very valuable for military or other expeditions. Lean meat is cut into small strips, dipped into hot fat for a few minutes, then drained, and slowly dried in the oven. The dried meat is finally ground in a coffee mill. It has a pleasant taste and smell, keeps well, is not bulky, is easily digested, and can be used in many different ways.

UNDESIRABLE IMMIGRANTS A MENACE TO THE FUTURE AMERICAN PHYSIQUE.

DR. J. W. ACHORN (*The Dietetic and Hygienic Gazette*, June, 1895, "A Suggestion for the Preservation of the American Physique") communicates some interesting facts as to the physical condition of some of the immigrants admitted to this country from abroad, practically without examination, facts which should claim serious consideration by our national lawmakers. Dr. Achorn says that a steamer on which he returned to this country from

Europe brought 600 Italians, Hungarians, Polish and Hungarian Jews, Russians, Bohemians, Arabs, and other steerage passengers, among whom were seven lame and eighteen deformed. He examined 153 of the total 600, and found four cases of advanced phthisis, six of inherited syphilis, two of fetid abscess, three of syphilis, one of delirium tremens, nine of rickets, "any number of skin diseases, parasitical and otherwise," two of favus of the scalp, and three of chronic ulcer of the leg. Only one of the 600, a man with cataract of the left eye due to syphilis, was refused admission to the country.

Bubo Plague in China.

The plague broke out in Macau, a Portuguese colony thirty miles from Hong Kong, in May, 1894, but only six cases occurred. In February, 1895, it broke out again and soon became epidemic. In the absence of official statistics there is no way to learn the probable mortality, but it is known that during the second week in May as many as seventy or eighty deaths occurred daily. On June 12th the death-rate was fifteen daily. Only 10,000 of the 80,000 inhabitants remained in the town. The chief sufferers were the Chinese, though the Portuguese suffered severely. In Hong Kong, where plague raged in 1894, only six or eight English were attacked, showing, as was then stated, that the European is practically immune. The Portuguese of Macau, however, are not European Portuguese, but are descended from the parent stock which came to Macau 350 years ago and freely intermarried with the Chinese. At Macau the disease was exactly like that of 1894 at Hong Kong; the mortality was as severe and the bacillus identical.

It is surmised that the infection came originally from Canton, about one hundred miles away. Plague travels slowly and remains a long time in any community attacked. It appeared at Macau seven months after the disappearance of the disease at Canton. Assuming that it had started from Canton during the height of the epidemic there, say in May, 1894, it took nine or ten months to travel one hundred miles. That it is a soil-bred and a soil-supported disease there seems to be little doubt, and the belief that animals, especially rats, are the carriers daily receives confirmation. [From an editorial in the *British Medical Journal* of July 20, 1895.]

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